

### Comments

#### Revised Risk Analysis and Risk Characterization Plan for the Lower Passaic River Study Area Dated April 13, 2012

1. The CPG agreed during the dispute resolution process to remove the word “urban” where it appears in connection with the word “reference” throughout the document. However, instead of removing the word urban entirely, “urban” has been added before the word “background” throughout the revised document. This is inconsistent with the agreement reached during the dispute resolution process.

In order to address your interest in having the site characterized as urban, and to clarify the definitions of background and reference conditions, please add the following language to the end of the first paragraph of Section 1.3:

USEPA (2002b) defines background as: “Substances or locations that are not influenced by the releases from a site and are usually described as naturally occurring or anthropogenic: (1) Naturally occurring substances are present in the environment in forms that have not been influenced by human activity; (2) Anthropogenic substances are natural and human-made substances present in the environment as a result of human activities (not specifically related to the CERCLA site in question).” It further defines a background reference area as: “The area where background samples are collected for comparison with samples collected on site. The reference area should have the same physical, chemical, geological, and biological characteristics as the site being investigated, but has not been affected by activities on the site.” Based on these definitions, the most appropriate data sets from which to obtain information on background and reference conditions are those that have been collected from areas that have similar characteristics to the environment of the LPRSA, which is an urban estuarine system.

In addition, please make the following changes:

- a. Page 7, Section 1.3.1, 2<sup>nd</sup> Paragraph, 5<sup>th</sup> Sentence – the use of the word urban in this sentence is inaccurate, since it is in quotes, and the cited guidance does not contain the word urban. The text is quoting from page 6 of the guidance, second bullet, which states: “The risk characterization should include a discussion of elevated background concentrations of COPCs and their contribution to site risks.”
- b. Page 7, Section 1.3.1, 3<sup>rd</sup> Paragraph – Please rewrite this paragraph as:

The LPRSA background evaluation, which will be performed under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) framework, will focus on anthropogenic background given the LPRSA’s location within a heavily urbanized and industrial watershed.

- c. Remove the word urban throughout the rest of the document. Specific instances of the inappropriate use of the this word occur on page 3 (the instance in the last sentence of the first paragraph on the page, not before the word “development”), pages 6 – 8 (Section 1.3), page 9 (Title of Appendix B), pages 18 – 22 (Table 2-2), page 48 (Table 2-3), page 51, page 56, page 58, page 60, and page 120.
2. Page 11, Section 2.0, Last Bullet – the phrase “from upstream of the LPRSA” should be changed to “from locations described in Appendix B of this RARC.”
3. Page 15, Section 2.1, Problem Formulation - Invertivorous fish population: As per Appendix C, 6.5 and 8.5, both white perch and channel catfish consume finfish as adults and thus could be considered piscivorous for this life stage. Use of only invertebrates in the assessment may underestimate risk to the adults. Receptor dose equations should reflect consumption of invertebrates and finfish for which measured concentrations are available. At a minimum, this should be discussed in the uncertainty section.
4. Page 24, Section 2.1.4, Eco CSM – Paragraph 1, 2<sup>nd</sup> sentence: Did the CSM consider what species should be present at the site relative to other estuarine/freshwater systems (e.g., but may not be present due to contamination)? Paragraph 3, last two sentences: All man-made structures in the river may act as valuable aquatic habitat including those associated with bridges (e.g., pilings, walls, bulkheads, riprap, etc). In addition, mudflats and other surfaces may be preferred habitat for some species at low tide (e.g., shorebirds).
5. Page 39, Equations 2-2 and 2-3 – it is unclear why chemical concentrations in prey are expressed as mg/kg wet weight in Equation 2-2 and as mg/kg dry weight in Equation 2-3. Please clarify or adjust, as appropriate.
6. Section 2.5.1.2, Sediment Quality Triad Approach (Data Analysis) – Please add language to this section indicating that the approach outlined may need to be revised based on the results of the SQT evaluation.
7. Page 56, Section 2.5.1.2, Sediment Chemistry Data and Benthic Invertebrate Community Structure Data- the use of the term “normalized” should be explained.
8. Page 94, Section 3.3.4.3, Last Paragraph – this sentence should be revised to “The applicability of the wading scenario throughout the LPRSA will be evaluated as part of the risk assessment, as discussed in Section 3.3.5 of this report.”
9. Page 96, Section 3.3.4.6 – The sentence starting “A creel angler survey was conducted . . .” should start a new paragraph. In addition, contrary to EPA direction, ingestion rates were added after the references to Burger 2002 and Connelly et al. 1992 in this section. EPA understands why the

ingestion rates were added, but the appropriate rate to add would be 37 g/day from Burger, not 57 g/day.

10. Page 97, Cooking Loss – EPA has reviewed the cooking loss information submitted by the CPG and is prepared to discuss it.
11. Page 102, Table 3-3 – please revise the Receptor Population/Age Groups listed in this table. They should match those presented in Table 3-4 (there should be a young child wader and an older child boater).
12. Page 108, Cooking Loss – please clarify that alternative values may be used for the CTE only.
13. Appendix B – EPA has several comments on this appendix. However, once the issue of what data should be used to define background and reference conditions is resolved, many of these comments may become irrelevant, and others may need to be adjusted. As has been indicated, EPA is developing a hybrid approach to address this issue, which takes into consideration both the CPG's and the partner agencies positions on it. A meeting will likely be required between EPA, the CPG, and the Partner Agencies in order to come to final resolution on this topic. Additional comments on Appendix B will be submitted after that meeting.
14. Appendix C – For mummichog, brown bullhead, and mink, the seasonal use indicated on Tables 5-2, 8-1, and 16-1, respectively, should be identified as year-round. Footnotes, similar to the one on Table 10-1 for the smallmouth bass, may be added to each table to explain that none of these species are migratory; they stay in/near the river over the winter.